(54) Title: SYSTEM AND METHOD FOR A TARGETED PAYMENT SYSTEM DISCOUNT PROGRAM

High Level Overview

(57) Abstract

A system and method for operating a computer based targeted payment system discount program. Consumer information from consumer payment system institutions is used to match qualified consumers to targeted merchant discount offers. Offers are automatically prioritized based on their expected value to consumers and consumers receive the highest priority offers for which they qualify. The default prioritization can be altered or overridden by the consumer's payment systems institution. Discounts are automatically applied during the processing of the qualifying purchase without the need for coupons or additional actions by either the merchant or consumer.

SYSTEM AND METHOD FOR A
TARGETED PAYMENT SYSTEM DISCOUNT PROGRAM

BACKGROUND OF THE INVENTION

As the credit card industry has evolved and grown more competitive over the
5   last twenty years, many credit card issuing financial institutions have attempted to
distinguish themselves from their competition by introducing new features and
benefits with their credit cards. Among these features have been programs that
reward the consumer for using their credit card with reduced interest rates on the
purchase amount, accrued rebates redeemable for specified products or services, or
10   coupons redeemable at the time of purchase. Some of the more successful reward
programs have been designed to motivate the consumer to make purchases at specific
merchants.

It is common practice among the credit card issuers to include inserts with
their monthly statements that market merchant products and services. The targeting
15   for these inserts is based, however, on minimal cardholder information such as the
cardholder's state, zip code, or credit card type. These sorts of inserts have been
found to generate a very low response rate. i.e., have stirred little interest in
consumers. It is believed that most cardholders discard the inserts without looking at
them.

20   Focus groups conducted on this subject have found that consumers are
interested in receiving discounts for products and services, but only for those items
that they consider valuable. It is impossible to evaluate consumer interest in a product
or service based only on the geographic location of the consumer's residence.

Merchants are continually looking for ways to effectively market their
25   products and services. Discounts have proven to be an effective method for attracting
and retaining customers. Today there are a number of vehicles available to the
merchant to provide discounts to potential customers including bulk mailings,
newspaper, radio and television advertisements, and targeted marketing.

Targeted marketing is particularly effective and efficient for merchants because it is designed to identify consumers that are more likely than the general public to be interested in the merchant's products or services. One proven method has been to identify consumers that have demonstrated interest by purchasing similar or

5   related products in the past. One way for merchants to obtain such information has been to purchase consumer lists from various providers. These lists are again, however, generally based on rather limited, static targeting criteria.

Merchants thus desire a flexible, cost effective method for finding consumers who will be interested in their products or services. Consumers on the other hand

10   desire discounts on products and services they want or need. Unfortunately, the structure of the bank card world (Visa and MasterCard) makes the accomplishment of these seemingly parallel goals difficult. Cardholder transaction histories, a key to determining cardholder preferences and thus successful target marketing, are owned and controlled by the cardholders' issuing financial institutions and are unavailable to

15   merchants and their acquiring financial institutions who are separated from the cardholders and their issuers by the Visa and MasterCard interchanges, across which money, but not information, passes.

Merchants and their acquirers do not therefore have access to the cardholder information necessary to provide targeted offers, and issuers do not have the access to

20   merchants necessary to design targeted offers deemed valuable by their cardholders. An individual financial institution that serves as both an issuer and acquirer may bridge the gap for its own merchants and cardholders, but targeting to this smaller subset of cardholder is obviously of less value to merchants and the limited range of merchant offers is similarly of less value to cardholders and will be less effective in

25   stimulating card usage. The divide between merchants and their acquirers and cardholders and their issuers can be bridged however by a credit card processor that receives information from both sides of the interchange and has the processing capacity to perform the necessary offer matching, delivery, and fulfillment.

SUMMARY OF THE INVENTION

The purpose of the present invention is to meet the objectives of merchants (which includes service providers) and consumers as well as the financial institutions on both sides of the interchange. Specifically, the goal is to provide merchants with a flexible, cost effective method to provide a large number of interested consumers with value propositions that discount the merchants products and services, and to provide consumers, or cardholders, with a broad range of merchant offers in which they will be most interested. A further goal and effect of the invention will be to increase the use of the bankcards of participating financial institutions, which provides a convenient automated means for implementing targeted discounts without the need for coupons, mailings, or additional transactions on the part of either the cardholder or merchant. Finally, the invention meets the above objectives while at the same time preserving the consumers' privacy by avoiding the dissemination of the cardholders' transaction histories to merchants or outside financial institutions.

To meet these objectives the invention utilizes five basic steps: (1) an automated process which enables the merchant to target consumers based on purchase behavior and geographic location; (2) an automated process which matches targeted merchant offers against a data base of consumers and historic purchase behavior; (3) an automated process which provides the consumer with the best value propositions from multiple merchants/service providers; (4) the ability for the consumer to act on the value proposition and receive an automated credit for the discount amount without the need of a coupon or additional transactions; (5) an automated process which reports on the execution of the discount transaction to the consumer and merchant.

In the first step, the merchant can, through an automated process, define targeting criteria based on consumer historic purchase activity by Merchant Category Code (MCC) or specific merchant ID. This gives the merchant the ability to target consumers that have transacted at their location, competitors en masse, or complimentary MCCs. For example, a boating merchant can target consumers that have made purchases at boating merchants, boating service stations, or sporting goods stores. The merchant can further focus the targeting of historic purchase activity by requiring a specific number of prior purchases and/or a minimum dollar amount spent

at the targeted merchants during a specific period. Other targeting criteria available to the merchant include airline travel information, months since last move, credit limit, credit instrument available funds, consumer state, and consumer five digit zip code. Merchants or their acquirers can submit preliminary batch queries to determine the

5   number of cardholders who would qualify for a particular proposed discount offer. Merchants can thereby fine tune their target criteria to reach an audience of the desired size and level of interest.

Merchants can define the discount amount of the value propositions to be a percentage of the total purchase or a flat dollar amount. They can also define whether

10   the value proposition is a one time offer or unlimited for a specified promotion period. If the value proposition can be redeemed more than once, the merchant can vary the discount percentage or amount between the first and subsequent purchases. The merchant can also define a minimum or maximum purchase amount, as well as a maximum discount amount.

15   Once the target criteria have been defined, an automated process matches the value propositions against the consumer data base supplied by the participating issuers to find eligible consumers. Each consumer will receive multiple value propositions from different merchants. The limit on the number of value propositions provided to each consumer each month is defined by a parameter in the automated system. If the

20   consumer is eligible for more than that limit, the automated system will select the best value propositions. In the preferred embodiment, value propositions are prioritized based on the total transaction dollar volume that they are expected to generate, a good proxy for determining those value propositions that consumers will most likely respond to and find valuable. The formula used to calculate expected total transaction

25   dollar volume depends on a number of features of the offer. This prioritization formula will be updated automatically as data on actual offers is received.

This prioritization of merchant offers may be altered by the cardholder's issuing financial institution. Issuing institutions may automatically or manually either exclude or preference particular offers for particular cardholders. For instance, if an

30   issuing bank is also participating in a co-branding program with an oil company, it

may want to, or be contractually required to, exclude its co-branded cardholders from receiving discount offers from competing oil companies. Or, a bank may want to use additional demographic information on its cardholders to override or further refine the default prioritization of offers to certain or all of its cardholders in an attempt to

5   further maximize card usage and customer satisfaction (and obtain a competitive advantage over other issuers).

Through an automated process, consumers receive notification of the value propositions available to them along with the pertinent information: discount amount, minimum or maximum purchase (if applicable), maximum discount amount (if

10   applicable), and expiration date. The redemption of the value propositions is automatic when the consumer uses his or her credit card at the merchant/service providers establishment. No coupon is provided or required. The purchase transaction is processed through the merchant/service provider's acquiring institution where the discount is applied. The original purchase transaction along with the

15   discount transaction is sent to the consumer's issuing financial institution where it is processed and statemented on the consumer's next statement. The purchase and the discount transaction are also provided on the merchant's next statement by its acquiring institution. After the offer period has expired, merchants automatically receive reports summarizing the response rate, i.e. success of their offers.

20   **BRIEF DESCRIPTION OF THE DRAWINGS**

Fig. 1 is a diagram of the major process flows of the invention;

Fig. 1.1 is a diagram of the Merchant Management process;

Fig. 1.2 is a diagram of the Offer Development process;

Fig. 1.3 is a diagram of the Offer Management process;

25   Fig. 1.4 is a diagram of the Issuer and Card Group Management process;

Fig. 1.5 is a diagram of the Cardholder/Ticket Tape processing;

Fig. 1.6 is a diagram of the Cardholder Extract process;

Fig. 1.7 is a diagram of the Offer Assignment process;

Fig. 1.8 is a diagram of the Offer Delivery process;

30   Fig. 1.9 is a diagram of the Offer Fulfillment process;

Fig. 2 is a diagram of the process flow involved in checking for cardholder participation.

DETAILED DESCRIPTION

Fig. 1 shows an overview of the major process flows of the Program. Block 1
5 represents Merchant Management which entails the collection and maintenance of information on all participating merchant outlets required for the implementation of the Program. This information is maintained in the Merchant Data Store, a collection of files which includes the Merchant Table, Merchant Financial History Table, Merchant Category Code Table and the Merchant Qualification Criteria. Block 1 is
10 expanded and further explained in Fig. 1.1. Block 4 represents Issuer and Card Group Management which entails the collection and maintenance of data on the issuers and their cardholders who may be subdivided by the issuer into up to 36 separate card groups. Block 4 is expanded and further explained in Fig. 1.4. Block 6 represents the process of Extracting participating cardholders from the participating issuers' Master
15 Cardholder files. This block is expanded and further explained in Fig. 1.6. Block 5 represents Cardholder and Ticket Tape Processing, i.e., the means by which the transaction histories of participating cardholders are updated and incorporated in the Program Matching File for use in the Cardholder Offer Assignment process. Block 5 is expanded and further explained in Fig. 1.5. Block 2 represents the Offer
20 Development process whereby merchants and their acquirers formulate and test discount offers and developed offers are entered into the official offer pool. Block 2 is expanded and further explained in Fig. 1.2. Block 3 represents the Offer Management processes which includes the review of offers by issuers, their prioritization into value tiers, and the final release of offers for use in the matching
25 process. Block 3 is expanded and further explained in Fig. 1.3. Block 7 represents the Offer Assignment process. This includes the matching of offers with cardholders, their distribution to cardholders who qualify for more than the maximum number of offers, and the "fair share" allocation of oversubscribed offers. Block 7 is expanded and explained further in Fig. 1.7. Block 8 represents the process of automatically
30 notifying cardholders of the best offers for which they qualify. Block 8 is expanded and explained further in Fig. 1.8. Block 9 represents the Offer Fulfillment process in which offers completed by qualifying cardholders are automatically detected and the

resulting discounts credited to the cardholders account. Block 9 is expanded and further explained in Fig. 1.9.

Fig. 1.1 details the Merchant Management process through which all of the data on all participating merchants required for implementation of the Program is

5   collected and maintained in the Merchant Data Store. The collected data is necessary for the offer prioritization process and the issuer preference and exclusion processes which will be discussed in more detail in the context of the Offer Assignment process detailed in Fig. 1.7.

Every week in step 1.1.7 a file is created from the Merchant Master File .

10   1.1.8. listing all participating Merchants. The result is the Merchants File 1.1.6. The Merchants File is then pre-processed in the Merchant Load step 1.1.5. wherein each merchant record is supplemented with an Area of Dominant Influence (ADI) which is assigned based on the merchant's five digit zip code. The resulting supplemented records are stored in the Merchant Table 1.1.4.

15   To keep closer tabs on Merchants whose status has changed (e.g., has suffered financial problems or closed outlets) a Merchant Update File 1.1.2 is sent daily from the merchant processor. This file contains all the changes which were made to the merchant's record. This information is added to the Merchant table (1.1.4) through the Merchant Update step (1.1.3) again. new merchants will be added and existing

20   merchants will be updated but merchants will not be deleted during this process. The daily Merchant Update is primarily to track particularly time critical information. e.g. the discovery of a fraudulent merchant.

The monthly sales and transaction information on all merchant outlets is extracted from the Merchant Financial History Master File (1.1.16) and imported to

25   the system in the form of the Merchant Financial History File (1.1.15). Records from this file are added monthly in the Merchant Financial History Load step to the Merchant Financial History Table (1.1.13) in the Merchant Data Store. The table contains up to 13 months of financial and transaction summary information for each merchant outlet. During the Merchant Financial History Load step. the 14th month of

30   data is deleted from the table.

Visa and MasterCard Merchant Category Code (MCC) information on participating merchants is stored in the MCC File (1.1.22) which is updated monthly

by the merchant processor. This file is used to update the records in the MCC Table (1.1.18) in the Merchant Data Store. The records in the MCC Table also contain manually entered MCC Cluster data that is maintained during the update process. New MCC's may be added during the update but old MCC records are not deleted.

5   To qualify for participation in the program, merchants must satisfy the Merchant Qualification Criteria contained in 1.1.10 in the Merchant Data Store. The Merchants may be disqualified from participation based on their MCC, Merchant ID, Annual Dollar Volume, Annual Transaction Volume, or Acquiring Bank. Whenever information is changed in the Merchant Table (1.1.4), the merchants must be

10   requalified by execution of the Merchant Qualification Processing Step (1.1.9) which requires comparison of the Merchant data in the Merchant Table (1.1.4) with the Merchant Qualification Criteria (1.1.10).

The Offer Development process is detailed in Fig. 1.2. In step (1.2.7) the Dealmaker, working with the Merchant, creates a new proposed promotion. A

15   promotion will contain one or more offers to be delivered to cardholders. The promotion contains the basic information common to the related offers. The promotion information required of the dealmaker or merchant includes: Name (a short name for the promotion, e.g., "Toys 'r' Us National Spring 96 Sales Campaign"); Begin Date (Month and Year-all promotions begin on the first of the month); End

20   Date (Month and Year-promotions always end on the last day of the month); Description (a multi-line detailed description of the promotion).

Dealmakers and merchants can customize their offers in several ways to best suit the merchant's need and goals. Offer discounts can be either a percentage of dollar amount. Discounts can apply only to first purchases or to all purchases or can

25   be phased with different discounts between the initial and subsequent purchases. Discounts can be limited by requiring a minimum purchase or maximum discount per cardholder or maximum audience size, i.e., by capping the number of cardholders who can receive the offer.

The ability of merchants to target a specific population of cardholders based

30   on purchasing behavior and account characteristics is an important element of the Program. Merchants can select targeting criteria based on the following cardholder data: state of residence; ADI (Area of Dominant Influence, a television marketing

term that defines metropolitan areas); ZIP3 (first three digits of the cardholder's zip
code); months since last move; credit limit; open to buy (credit limit-current balance);
purchase history and travel information.

Purchase history is a particularly important targeting criteria. The Program

5   maintains a purchase history for each of the participating issuer's cardholders in
which the number and dollar volume of a cardholder's transactions are summarized
into three types of quarterly "buckets"; by merchant, MCC (Merchant Category
Code), and overall. Merchants may also target cardholders based on travel data, i.e.,
the number of trips to a particular destination airport per quarter (where plane tickets

10   were charged on the consumers participating bankcard). Finally, merchants can target
consumers base on their response rate to prior Program offers, specifically the number
of responses to offers by quarter, either overall, by MCC or by merchant. All
purchase history transaction data is summarized in calendar quarter buckets. The
Program maintains five quarters of data, the current and the last four complete. For

15   targeting purposes, cardholder activity can be summarized over any combination of
quarters which need not be consecutive.

When targeting a cardholder population, merchants can use any or all of the
characteristics listed above and logical "and" and "or" operators can be used to
combine criteria. In (1.2.1) Dealmakers, can create one or more batch queries which

20   can be executed nightly to determine the number of cardholders which meet the
merchants target criteria. Batch queries are entered through the Offer Target Query
Screen (1.2.2) and are stored in the Batch Queries File (1.2.3). The Batch Queries are
executed and matched against the Program Match File (1.2.18) in step 1.2.4. Batch
query results are stored in 1.2.5 and are supplied to the Dealmaker or Merchant on

25   Query Status Screen (1.2.6).

The finalized offers are then added to the Offers Table (1.2.8) and assigned to
one of three value tiers based on a value score proportional to the expected transaction
dollar volume, a measure of the expected value of the offer to cardholders. The value
score is calculated as a function of 6 parameters:

30   (1)   Discount percentage. For offers which have "stepped" discounts, the
higher discount level is used. For offers which a dollar off rather than a percent off,
the dollar amount is converted to a percent by dividing it by the minimum purchase if

there is one. or the average merchant ticket amount if the offer has no minimum purchase.

(2)   Targeting Score. This factor is intended to reflect how targeted the offer is and can take one of three discrete values.

(3)   Average Ticket. This is the merchants average ticket over the preceding twelve months.

(4)   Duration Score. This factor is intended to reflect the number of times a cardholder can act on an offer. Offers in which only the first purchase is discounted are given a 1. Offers in which subsequent purchases are discounted a lesser amount are given a 2. and offers in which all purchases are discounted the same amount are given a 3.

(5)   Industry Volume Score. This parameter is used to take into account the transaction level of the MCC. The Score can be either 1. 2 or 3 depending on the merchants MCC.

(6)   Minimum Purchase Required. Offers which require a minimum purchase receive a 1 and offers which do not receive a 2.

The Value Score is currently calculated as a linear function of these parameters (except 10/SQRT(Avg. Ticket) is used instead of Average Ticket). The seven constants in the formula are calculated by least squares linear regression using total transaction dollar volume data as it becomes available. Other more complicated predicting formulas may be used and are under examination including neural networks.

Offers are placed in one of the three value tiers based on their value score. The minimum value score for each tier is stored in a table and can be updated as needed to provide for a more even distribution of offers among the tiers. After the value tier assignment is made it is displayed on-line for the dealmaker or merchant to review.

In step (1.2.9) the dealmaker creates an offer graphic to be used as an overlay on the receiving cardholders bankcard statement sent. Dealmakers/ Merchants can select a logo from the Program standard library. If the dealmaker wishes to use a logo that is not in the library. he can request a custom logo on-line. The custom logo request will be routed to Program Headquarters. The dealmaker then forwards the

artwork and a fee. After Program Headquarters loads the new logo into the library,
the dealmaker will receive on-line notification that the logo is ready for use. All offer
overlays are required to follow the same general approved format. The Offer
Management system will generate all overlays using the data elements selected by the

5   dealmaker. Each month these files are sent to the offer delivery system for loading
into the production library.

In step (1.2.11) the Dealmaker generates the contracts which must be executed
by the merchant and its acquirer before a merchant offer can be accepted in the
Program. The contracts are then forwarded to the necessary parties. A participating

10   merchant must have an Executed Offer Addendum Agreement for each Program offer
they wish to make. Every offer maintained in the Program "deal warehouse" must
have an active and mutually executed addendum. Once an offer addendum has been
signed by the merchant and Acquirer, it is mailed to the Program Headquarters for
approval and storage.

15   In step (1.2.16) the program administrator reviews the offers and verifies that:
the copy and logo are in sync; the logo and copy meet technical standards (overlay
dimensions, font, excessive use of black toner, 240 dot per inch (dpi) resolution
quality graphics) the offer meets the substantive standards required by the program;
the offer copy and overlay match the description in the contract addendum; the offer

20   text has no typographical errors and accurately conveys the information on the
merchant overlay and Offer Addendum; an executed Master Contract with the
Merchant and Acquirer is on -file and active; the offer meets any pricing standards
required by the program; the Merchant's current status is favorable; and the Merchant
passes all Program risk controls. If the offer fails one of the above test, it is rejected

25   and sent back to the dealmaker to be brought into compliance. Otherwise, a Program
representative will sign the Offer Addendum and officially release the Merchant's
offer(s) into the "deal warehouse" for matching.

Fig. 1.3 details the Offer Management process. In step (1.3.1) Issuers are able
to review each of the offers in the Card Group Offers Table (1.3.14) which contains

30   the specific offers that will be delivered to the cardholders in each of the issuers card
groups. Issuers can review the effect that their preferences and exclusions had on the
current month's offers and during the review process can manually block or

preference specific card groups from receiving particular offers using the Offer Warehouse screen.

If the merchant offer information is complete, merchant offers which are not blocked are locked in and released for the matching process in step (1.3.5). Offers for

5   which the merchant information is not finalized are removed.

During step 1.3.8 Generate Merchant Offers, Merchant's outlet entitlement criteria is applied to all of a merchants outlets. Those outlets which meet the criteria are eligible to participate in the offer and are added to the Merchant Offers File (1.3.9) as a new record. The outlet entitlement criteria currently available for use by

10   merchants are 1) Outlet #, 2) Outlet City, State 3) Outlet State, 4) Outlet ADI. If a merchants opens any additional qualifying outlets during the promotion run, those outlets will be automatically identified during the daily Merchant Update Process (1.1.3), added to the participating outlets list, and sent on the daily Merchant Offers file (1.3.9) to the merchant processor for outlet entitlement.

15   In step (1.3.12) the locked in merchant overlays in the Overlay library are delivered in the Overlay Files (1.3.13).

Fig. 1.4 details Issuer and Card Group Management through which cardholder information and cardholder segmentation by the issuers is received into the program. This information includes the Issuers' Processor Client number which is used to

20   identify participating cardholders and tickets during the Cardholder Extraction process. Issuers also provide the definitions of one or more Card Groups into which their participating cardholders are segmented. The Card Group information may be provided either on the Issuer Setup Form (1.4.1) or electronically through a direct link between the Issuer and Program Headquarters (not shown). The received information

25   is written and stored in the Issuer Table (1.4.6) in the Issuer Data Store. Additional or modified information on either new or existing issuers can be entered in the Issuer Table (1.4.6) through the Add or Modify Issuer Information process (1.4.2).

Issuers can prevent any of their cardholders from receiving particular offers by defining issuer-level merchant exclusions which can be entered into the Issuer Table

30   (1.4.6) using the Issuer Preference Maintenance Screen (1.4.5). Issuers can define exclusions based on Program Merchant ID: Merchant MCC or MCC Cluster (or all

offers from a particular MCC or MCC Cluster except those from particular enumerated merchants): or Merchant Type (i.e.. National/Regional or Local).

The Card Group definitions are entered in the Card Group Table (1.4.8) in the Issuer Data Store, through the Card Group Maintenance Screen (1.4.7). The Card

5   Group Table (1.4.8) includes the text description included on the cardholders statements to identify Program credit and return transactions. This description is placed in the same field in the cardholders statement in which the merchant's name appears in the record of the associated sale transaction. One descriptor will be provided for each Issuer Card Group. Though, the Issuer may elect to provide the

10 same descriptor for all Issuer/Card Groups. These credit and return transaction descriptors are limited to 22 characters to ensure that the same descriptor can be used for both Visa and MasterCard transactions.

Issuers can separately affect the offers received by the members of different Card Groups by providing merchant exclusion and prioritization parameters for each

15 Card Group. This information is entered through the Card Group Preference Maintenance Screen (1.4.7) and is stored in the Card Group Preferences Table (1.4.11). Issuers can include, exclude or prioritize offers for each Card Group based on the following merchant parameters. Program Merchant ID Number; Merchant Category Code. Merchant Type (National/Regional, or Local). Using this automated

20 process, issuers can largely avoid manually reviewing and ranking offers within each card group. Use of the parameters and Card Groups provides an automated and manageable process for issuers to deal with the large number of offers and potential contractual conflicts (e.g., Affinity or Co-brand programs) while at the same time allowing for differentiation (and competition) from other issuers. A history of all

25 changes made to the ranking and selection rules is maintained for audit and control purposes.

The Issuer and Card Group Description Table is stored at the merchant processor and provides the credit and return transaction descriptor text to be used for each member financial institution. This text is placed in the credit and return

30 transactions and is printed on the cardholders statement. Each issuer will have different text, thereby allowing them to distinguish and "brand" their card groups. Each month. the processor loads the new Issuer/Card Group Descriptions File (1.4.21)

whereby the records in the Issuer and Card Group Descriptions File (1.4.20) are added to the Table.

The Cardholder and Ticket Tape Processing steps to create and update the Program Match File (1.2.18) are detailed in Fig. 1.5. In Step (1.5.6), the processor, using the Issuer Card Groups, extracts the tickets for each participating Program issuer and writes them to an extraction file (1.5.2). This file will, at the end of the process, contain all of the tickets for the participating issuers (not just the tickets for participating cardholders). This extraction process takes one of two forms depending on whether or not the Issuer is new to the program. When a new issuer joins the program a New Issuer One-Time Load is required in which all tickets for the past 122 days are extracted from the processor on-line database. For issuers who are already participating in the program, only the past day's tickets are extracted.

The resulting Daily Tickets File (1.5.2) is preprocessed to add additional fields. The resultant records are added to the previous days tickets (1.5.2) to create a new Ticket Summary File (1.5.5). This process uses merchant and MCC information found in the Merchant Xref Table (1.5.9) and the MCC Xref Table (1.1.12) to provide the cross-reference numbers for MCCs and merchants. The Ticket Summary File summarizes cardholder purchase activity by merchant, MCC, MCC Cluster, and Airline Destination City. The file stores transaction and dollar amount totals for all sales and returns (not just those under the Program) for each of the last five quarters (four quarters plus the current quarter). This update process is run daily.

The Program Cardholders File (1.5.8) is created in step (1.5.15) which is repeated monthly. The Extract Program Cardholders File (1.5.15) which was created in the Cardholder Extraction Process is received, formatted and preprocessed to add additional fields. Additional data elements are then added to the records including the cardholders' ADI, found in the Geographic Data File Table (1.5.1). Cardholder records with a 'Z' in the Card Group field (i.e., records for cardholders who have been excluded from participating in the program by their issuer) are not included in the Program Cardholders File (1.5.15).

Monthly Match File Creation (1.5.16) is run where a participating cardholder's purchase information, stored on 1.5.5, is merged with the cardholder information,

stored on 1.5.8, to create the Program Match File (1.2.18) which is used during Cardholder Offer Assignment (1.7.1).

During the daily ticket processing in step (1.5.3), a copy of each Program ticket and return is saved in the Detail Response File (1.5.11). This table is used to

5   monitor the offers. and create management and member reports. Similarly a record of each non-program return transaction, regardless of issuer is saved in the Returns File (1.5.12). Only return records from the last 90 days are maintained in this file. older records are purged. The purpose of this file is to allow for easy monitoring of potential fraudulent return activity.

10   In Step 1.5.14 the Offers Table (1.2.8) and Card Group Offer Table is updated daily with information from the Detail Response File (1.5.11) in order to allow tracking of offer performance on a daily basis. Offer response data added to the Offers Table (1.2.8) through this process includes: Number of Purchases (add day's transactions to current total); Gross Purchase Amount (add day's ticket amounts to

15   current total ticket amount) as well as Number of Returns and Gross Return Amount.

Fig. 1.6 details the Cardholder Extraction process. Through this process. the Master File of participating cardholders and their card group assignments is updated monthly. In step (1.6.1) the issuers in the Program define a Card Group for each of their participating cardholders. As described above. Card Groups are used to segment

20   the issuer's cardholders into manageable categories for purposes of ranking Program offers and specifying custom selection criteria. The grouping characteristics are determined by the issuer who codes each cardholder account with a one a one-character Card Group identifier via a "non-monetary" electronic transaction. Correspondingly, an Offer Management System screen will setup the same Card

25   Group identifiers and issuer-chosen descriptions so that the card groups can be used in both screen displays and reports to categorize. summarize. and manage sets of cardholders.

Each issuer can define as many as 36 different card groups each of which is represented by a single character '0' through '9' and 'A' through 'Z'. A value of Z in

30   the Card Group field on a cardholder's record in the Cardholder Master File means that the cardholder has not been selected to participate in the Program. Participating

cardholders are those who have not opted-out and whose issuing bank has selected them for participation (by not assigning them to card group Z).

The non-monetary electronic transactions (1.6.4) through which the issuer sends the processor the cardholders Card Group can be submitted by the issuer at any

5   time, are processed as they are received, and are used to update the Cardholder Master File (1.6.5). The updated information will not be reflected in the Program Master Database, however, until the next monthly processing cycle.

The Issuer Definition File (1.6.8) which contains a unique client number for each participating issuer is received into the system each month and used to update the

10   Issuer Control file which is matched against the Cardholder Master File in the final Cardholder Extraction in which the records of all of the cardholders for each of the participating issuers are copied from the Cardholder Master File to the Extracted Program Cardholder File.

Fig. 1.7 details the Offer Assignment process. After offers have been received

15   in the Offer Management System and assigned a value tier, but before the offer warehouse is opened for matching, each Card Group's preference criteria are applied to the available offers. This results in six value tiers of offers A1, A, B1, B, C1 and C for each card group where the "1" value tiers meet the preference criteria specified by the issuer for that card group.

20   The first step in assigning offers to a cardholder is to determine the Card Group to which the Cardholder belongs. The matching engine then uses the Match File (1.2.18) and the Card Group Offers Table (1.3.14) assign offers from that Card Groups A1 tier until a pre-set number of assignments have been (currently 10). If the engine does not find 10 offers in tier A1, it either goes to tier A or B1 depending on

25   whether the issuer has chosen "Value" or "Preference" matching. If an issuer chooses "Value Matching" the tiers are ranked A1, A, B1, B, C1, C. If the issuer chooses "Preference Matching", the tiers are ranked A1, B1, C1, A, B, C. Once a cardholder is assigned ten offers the engine moves on to the next cardholder. During this first pass, a counter is kept of the number of cardholders assigned an offer.

30   After all cardholders have been assigned ten offers, a second "fair share" assignment pass is made. Two critical factors create the need for a second "fair share" offer assignment pass. First, cardholders are read in sequential order (i.e. grouped by

Issuer). Second, some merchant offers are capped (i.e., are sent to a limited number of cardholders). Without a fair share pass, cardholders at the bottom of the list would never receive capped offers. During the "fair share" run, offers which are "oversubscribed" are reallocated evenly throughout the list of cardholders. E.g., if the

5   offer was over subscribed by a factor of 10 every tenth cardholder who received it in the first pass gets it in the second pass. At the end of the second assignment pass, cardholders keep the first six offers still available to them from the ten assigned during the first pass.

        In step (1.7.5), after the assignment process is completed, the Selected Offers

10   Files are created. For each Card Group, the total number of cardholders assigned to each merchant offer is determined and stored in the Issuer/Card Group Offers Tables. The Assigned Offers Summary File (1.7.3) is created containing one record for each merchant offer delivered to one or more cardholders in any Card Group, and is used to in step (1.7.4) to verify that each merchant offer in the file has a corresponding offer

15   overlay. The absence of an overlay is communicated to the Program Headquarters so that the offer overlay can be transmitted for inclusion in the overlay library

        Fig. 1.8 details the offer delivery system. In step 1.8.10, the Cardholder Selected Offers File (1.7.5) is received into the statementing system each month. This file contains the cardholder account and the merchant offers that the cardholder will

20   be delivered. The Cardholder Selected Offers File is then matched with the Overlay Library (1.3.13) which contains each of the possible offer overlays for the current month. Each offer overlay in the Overlay Library is coded to match a unique merchant offer. Each cardholder record delivered in the Cardholder Selected Offers file contains one or more of these merchant offer identifiers.

25   In step (1.8.2) the Cardholder Statements with the appropriate offer overlays are printed. Before the offers are printed, however, the Issuer Policy Information must be matched with the statementing accounts in the Cardholder Statement Data file (1.8.1) from the nightly cycle to determine which cardholders get statemented. Because the cardholder characteristics may have changed between the time that the

30   cardholder was identified as eligible for certain offers and the time the statement is actually printed, the system performs edits against the cardholder account, to confirm

that the cardholder has not opted-out or otherwise become ineligible for the program and may have to be excluded from receiving an offer page.

After the statements are printed, the system creates a Cardholder Statement Positive File (1.8.3) which contains a record for each cardholder who was delivered a

5   Program statement page. Similarly, a Cardholder Statement Negative File (1.8.7) is created which contains a record for each cardholder who did not receive a Program statement and a reason code indicating why no statement was sent. In step (1.8.8) the Cardholder Statement Positive file (1.8.3) is used to update a variable within the Offers Table (1.2.8) which tracks the running total of the number of cardholders

10 which have been delivered an offer.

The Cardholder Statement Positive File (1.8.3) is also delivered daily to the two subsystems which process the cardholder and merchant transactions. In step (1.8.4), the cardholder processor adds the offers contained in the File to its own Cardholder Offers Table which contains all active offers and expired offers for a

15 period of six months beyond the expiration date. Similarly, in step (1.8.5) the Cardholder Statement Positive File is used to update the merchant processor's Cardholder Offers file which contains an up-to-date account of all offers that have been delivered to a cardholder in the past 180 days.

Fig. 1.9 details the Offer Fulfillment process. In Step (1.9.1), Merchant

20 Entitlement to participate in the Program for the month is set. The Merchant Offers File (1.3.9) which contains information on participating merchants is transmitted to the Merchant Processor where the information from the file is added to existing merchant accounts processing information. Thereafter, when a participating merchant makes a sale to a qualifying cardholder who has received the merchants discount

25 offer, the cardholder will receive the discount as an automatic credit without any further action (beyond normal credit card sales processing) on behalf of either the merchant or the cardholder. In Step (1.9.3) the merchant transmits the sales draft to the processor as it would any other credit card sale. The processor then determines whether the card holder is entitled to a credit on the transaction by comparing the

30 transaction information from the draft with the Merchant Entitlement information in the (1.9.2) file and the Cardholders Offers Table (1.9.6). The logic of this determination process is shown explicitly in Fig. 2. A cardholder is eligible for a

Program credit if: (1) they purchased goods or services from a merchant who is

currently participating in the Program: (2) they were designated as being eligible for a

merchant offer (i.e., they were sent an offer along with their monthly bankcard

statement); (3) they met the requirements of the specific offer being run by the

5   merchant (e.g., have made the minimum purchase); and (4) the sale is made during the

offer period.

The Program credit is then generated in step (1.9.7). The amount of the credit

depends on the details of the offer (e.g., discount percentage and or amount) which are

contained in the Merchant Offer Table. For processing through the interchange, the

10   credit transaction is assigned the same transaction number as its associated purchase

transaction. Special product codes are create which corresponding to either Visa or

MasterCard Program credits. A description of the credit transaction is taken from the

Issuer/Card Group Descriptor Table which is indexed by issuer ID and Issuer Card

Group. These two values are retrieved from the Cardholder Offers Table and used as

15   the unique key to look up the appropriate record in the Issuer/ Card Group Descriptor

Table. the credit transaction description text is retrieved from the record and

incorporated into the available text space on the credit transaction. The maximum text

length is 22 characters so that the same text can be used for both Visa and MasterCard

transaction.

20   If the draft submitted in step (1.9.3) is a purchase reversal (a return of

merchandise) the merchant processor checks the Merchant Processor U$AVE

Transaction Database to 1) determine if the cardholder had previously transacted on

an offer from the merchant, and 2) if the purchase amount of the offer matches the

returned amount on the purchase reversal. If both conditions are true, a debit is

25   generated, in the step (1.9.7), for the amount as the previously issued credit. This

permits the merchant to recoup the credit they had issued on the original transaction.

In step (1.9.10) the processor sends the transaction through the Interchange. In

step (1.9.12) the issuer's processor accepts the interchange transaction, recognizes and

flags it as a Program transaction and updates the Ticket Database (1.9.14) to include

30   the transaction. This information is passed back and updates the ticket file and the

response file.

This detailed description is of an embodiment of the invention in a credit card processing environment. Upon reviewing the disclosure herein, embodiments of the invention in any other payment transaction processing system, including checks, debit cards, private label cards, and on-line electronic payment systems will be obvious to

5   those of ordinary skill in the art. Similarly, though the communications and statements in the embodiment described in the detailed description take the form of printed mailings, it would be equally obvious to one of ordinary skill in the art that they could be replaced with electronic visual or audio communications. Such variations or modifications are intended to be encompassed within the scope of any

10   claims to patent protection issuing upon this invention.

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WHAT IS CLAIMED IS:

1   1.   A method for operating a general purpose digital computer having data

2   storage memory for a targeted payment system discount program comprising the steps

3   of:

4   (a)   data storing information on individual consumers supplied by

5   one or more payment systems institutions each of which supplies payment means to a

6   subset of said consumers, said consumer information includes the targeted

7   characteristics of said individual consumers;

8   (b)   data storing in a computer memory information on merchant

9   discount offers obtained from one or more acquiring financial institutions each of

10   which services a subset of said merchants, said merchant discount offer information

11   includes the discount amount, transaction requirements and consumer target criteria;

12   (c)   identifying qualifying consumers for particular merchant

13   discount offers by computer matching said offers' target criteria with the consumers'

14   targeted characteristics;break

15   (d)   comparing consumer transactions with the transaction

16   requirements of the discount offers for which the consumers qualify; and

17   (e)   automatically applying to the qualifying consumers' payment

18   systems accounts the discount amounts for offers for which the qualifying consumers

19   meet the transaction requirements.

1   2.   The method of claim 1 wherein the information on individual

2   consumers is supplied by a plurality of payment systems institutions.break

1   3.   The method of claim 1 wherein the information on merchant discount

2   offers is obtained from a plurality of acquiring financial institutions.

1   4.   The method of claim 2 wherein the information on merchant discount

2   offers is obtained from a plurality of acquiring financial institutions.

1   5.   The method of claim 1 further comprising the step of automatically

2   notifying consumers of said merchant discount offers for which they qualify.

1   6.   The method of claim 5 wherein the consumers are notified of only a

2   subset of the merchant discount offers for which they qualify.

1   7.   The method of claim 6 wherein the subset of merchant discount offers

2   for which the consumers qualify and of which they are notified is determined based on

3   a prioritization of discount offers using a function of expected transaction volume,

4   total discount, and total purchase amount.

1   8.   The method of claim 7 wherein said prioritization function is expected

2   response dollar volume which is calculated based on a plurality of parameters relating

3   to each of said offers.

1   9.   The method of claim 8 wherein one of said parameters is the offering

2   merchant's past transaction dollar volume.

1   10.   The method of claim 8 wherein one of said parameters is the offering

2   merchant's industry's past transaction dollar volume.

1   11.   The method of claim 8 wherein one of said parameters is the discount

2   percentage of said offer.

1   12.   The method of claim 8 wherein one of said parameters is the ratio of

2   the discount amount of said offer to the average purchase amount at the offering

3   merchant.

1   13.   The method of claim 8 wherein one of said parameters is the ratio of

2   the discount amount to the minimum purchase requirement of said offer.

14. The method of claim 8 wherein one of said parameters is the ratio of the minimum purchase requirement of said offer to the average purchase amount at the offering merchant.

15. The method of claim 8 wherein one of said parameters is the level of targeting of said offer.

16. The method of claim 8 wherein one of said parameters is the average purchase amount at said offering merchant.

17. The method of claim 8 wherein one of said parameters is a function of limitations placed on the discounts available under said offer.

18. The method of claim 8 wherein one of said parameters is the number of discounted purchases which can be made under said offer.

19. The method of claim 8 comprising the further step of using a computer and the information on actual transaction dollar volumes resulting from merchant discount offers to update the function used to calculate expected transaction dollar volume to make it a more accurate predictor of actual transaction dollar volume.

20. The method of claim 1, wherein the consumer's payment systems financial institution can affect the merchant discount offers received by the consumer.

21. The method of claims 1 comprising the further step of automatically filtering the merchant discount offers for which a consumer otherwise qualifies based on filter criteria provided by the consumer's payment systems institution.

22. The method of claim 21 wherein said filter criteria includes at least one of demographic characteristics of the consumer, the type of credit instrument, characteristics of the offer, and characteristics of the offering merchant.

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1   23.   The method of claim 21 or 22 wherein the effect of said automatic

2   filtering is to prevent particular consumers from receiving particular offers for which

3   they otherwise qualify.

1   24.   The method of claim 21 or 22 wherein said automatic filtering affects

2   the prioritization of offers for which the consumer qualifies and may thereby cause the

3   consumer to receive a different subset of the offers for which he qualifies.

1   25.   The method of claim 21 or 22 wherein said automatic filtering affects

2   the order in which the offers are printed on the consumer's statement.

1   26.   The method of claim 6 comprising the further step of allowing the

2   consumer's payment systems institution to manually prevent particular consumers

3   from receiving particular merchant discount offers.

1   27.   The method of claim 6 comprising the further step of allowing the

2   consumer's payment systems institution to manually affect the prioritization of offers

3   and thereby cause the consumer to receive a different subset of offers for which the

4   consumer qualifies.

1   28.   The method of claim 1 comprising the further step of allowing the

2   consumer's payment systems institution to manually affect the order in which the

3   offers are printed on the consumer's statement.

1   29.   The method of claim 1. comprising the further steps of:

2   (a)   automatically determining the number of consumers whose

3   target characteristics match the target criteria of a proposed merchant discount offer:

4   and

5   (b)   supplying the merchant with the number of matches so that the

6   merchant can assess the likely success of the proposed offer.

25

1   30.   The method of claim 1. comprising the further step of automatically

2   reporting periodically to the merchant the response rate among consumers to the

3   merchant's offer.

1   31.   The method of claim 1 wherein one of said targeted characteristics is

2   the consumer's payment transaction history.

1   32.   The method of claim 1 wherein one of said targeted characteristics is

2   the consumer's prior responses to Program offers.

1   33.   The method of claim 1 wherein one of said targeted characteristics is

2   the consumer's zip code.

1   34.   The method of claim 1 wherein one of said targeted characteristics is

2   the consumer's ADI.

1   35.   The method of claim 1 wherein one of said targeted characteristics is

2   the consumer's state.

1   36.   The method of claim 1 wherein one of said targeted characteristics is

2   the consumer's spending limit through said payment system.

1   37.   The method of claim 1 wherein one of said targeted characteristics is

2   the amount the consumer has available to spend through said payment system.

1   38.   The method of claim 1 wherein one of said targeted characteristics is

2   the number of months since the consumer's last change of residence.

1   39.   The method of claim 1 wherein said targeted characteristics includes

2   information by the consumer's travel.

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1   40.   The method of claim 1 wherein said merchant discount offers may be

2   restricted to a limited number of consumers.

1   41.   The method of claim 1 wherein said merchant discount offers may be

2   restricted to a limited number of consumers and comprising the further step of

3   distributing said restricted offers so as not to discriminate among participating

4   payment systems institutions.

1   42.   The method of claim 1 comprising the further steps of:

2   (a)   allowing the consumer's payment system institution to supply

3   custom indicia; and

4   (b)   automatically displaying said custom indicia in the payment

5   system institution's communication to the consumer.

1   43.   The method of claim 1 comprising the further steps of:

2   (a)   allowing the consumer's payment system institution to supply

3   descriptive text; and

4   (b)   automatically displaying said descriptive text in the payment

5   system institution's communication to the consumer contiguous to said discount

6   credit.

1   44.   The method of claim 1 wherein said merchant discount offers can be

2   limited to particular merchant outlets.

1   45.   The method of claim 1 wherein the participating merchants can choose

2   the form of said merchant discount offers including whether said offers (a) involve a

3   flat or percentage discount, (b) apply to single or multiple purchases, (c) have a

4   maximum discount, (d) require minimum purchases, or (e) have a maximum purchase

5   amount.

1   46.   The method of claim 1 comprising the further steps of:

2   (a)   allowing merchants to design offer overlays describing said

3   merchant discount offers; and

4   (b)   automatically printing said offer overlays on statements sent to

5   consumers receiving said offers.

1   47.   The method of claim 1 comprising the further step of automatically

2   debiting from the consumer's payment systems account discounts received on

3   purchases in which the merchandise is later returned to the merchant for credit.

1   48.   A system for a targeted payment system discount program comprising:

2   (a)   means for data storing in a computer memory information on

3   individual consumers supplied by one or more payment systems institutions each of

4   which supplies payment means to a subset of said consumers, said consumer

5   information includes the targeted characteristics of said individual consumers;

6   (b)   means for data storing in a computer memory information on

7   merchant discount offers obtained from one or more acquiring financial institutions

8   each of which services a subset of said merchants, said merchant discount offer

9   information includes the discount amount, transaction requirements and consumer

10   target criteria;

11   (c)   means for identifying qualifying consumers for particular

12   merchant discount offers by computer matching said offers' target criteria with the

13   consumers' targeted characteristics;

14   (d)   means for comparing consumer transactions with the

15   transaction requirements of the discount offers for which the consumers qualify; and

16   (e)   means for automatically crediting to the qualifying consumers'

17   payment systems accounts the discount amounts for offers for which the qualifying

18   consumers meet the transaction requirements.

1   49.   The system of claim 48 wherein the information on individual

2   consumers is supplied by a plurality of payment systems institutions.

1 50.   The system of claim 48 wherein the information on merchant discount

2 offers is obtained from a plurality of acquiring financial institutions.

1 51.   The system of claim 49 wherein the information on merchant discount

2 offers is obtained from a plurality of acquiring financial institutions.

1 52.   The system of claim 48 wherein the consumer's payment systems

2 financial institution can affect the merchant discount offers received by the consumer.

1 53.   The system of claim 48 further comprising means for automatically

2 filtering the merchant discount offers for which a consumer otherwise qualifies based

3 on filter criteria provided by the consumer's payment systems institution.

1 54.   The system of claim 53 wherein said filter criteria includes at least one

2 of demographic characteristics of the consumer, the type of credit instrument,

3 characteristics of the offer, and characteristics of the offering merchant.

1 55.   The system of claim 53 or 54 wherein the effect of said automatic

2 filtering is to prevent particular consumers from receiving particular offers for which

3 they otherwise qualify.

1 56.   The system of claims 53 or 54 wherein said automatic filtering affects

2 the prioritization of offers for which the consumer qualifies and may thereby cause the

3 consumer to receive a different subset of the offers for which he qualifies.

1 57.   The system of claims 53 or 54 wherein said automatic filtering affects

2 the order in which the offers are printed on the consumer's statement.

1 58.   The system of claim 48 further comprising means for allowing the

2 consumers payment systems institution to manually prevent particular consumers

3 from receiving particular merchant discount offers.

1   59.   The method of claim 48 further comprising means for allowing the

2   consumers payment systems institution to manually affect the prioritization of offers

3   and thereby cause the consumer to receive a different subset of offers for which the

4   consumer qualifies.

1   60.   The method of claim 48 further comprising:

2   (a)   means for automatically determining the number of consumers

3   whose target characteristics match the target criteria of a proposed merchant discount

4   offer; and

5   (b)   means for supplying the merchant with the number of matches

6   so that the merchant can assess the likely success of the proposed offer.

1   61.   The system of claim 48 further comprising:

2   (a)   means for allowing the consumer's payment system institution

3   to supply custom indicia; and

4   (b)   means for automatically displaying said custom indicia in the

5   payment system institution's communication to the consumer.

1   62.   The system of claim 48 further comprising:

2   (a)   means for allowing the consumer's payment system institution

3   to supply descriptive text; and

4   (b)   means for automatically displaying said descriptive text in the

5   payment system institution's communication to the consumer contiguous to said

6   discount credit.

1   63.   The system of claim 48 further comprising:

2   (a)   means for allowing merchants to design offer overlays

3   describing said merchant discount offers; and

4   (b)   means for automatically printing said offer overlays on

5   statements sent to consumers receiving said offers.

30

1   64.   The system of claim 48 further comprising the for automatically

2   debiting from the consumer's payment systems account discounts received on

3   purchases in which the merchandise is later returned to the merchant for credit.
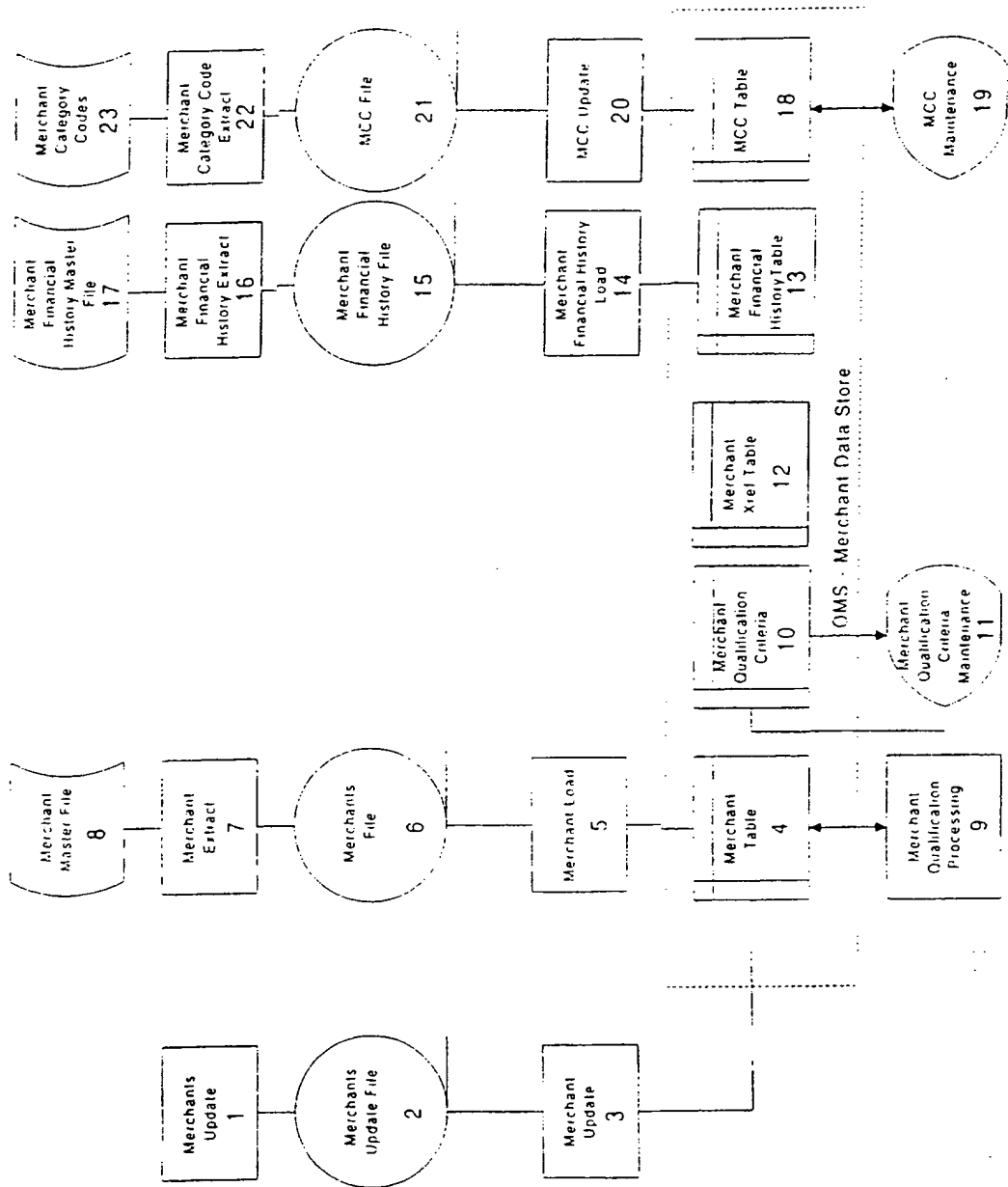
Figure 1 - High Level Overview
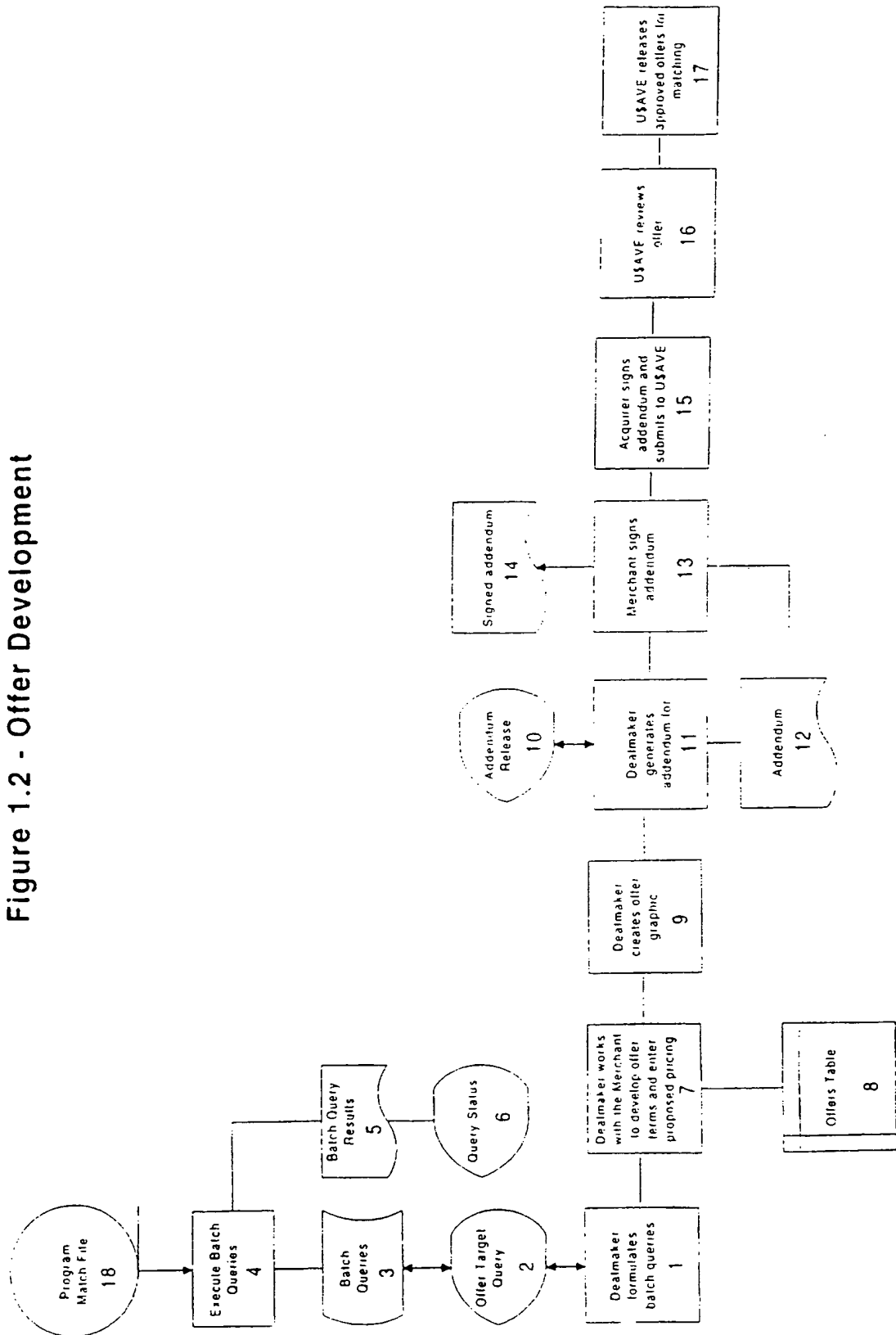

Merchant Management 1

Offer Development 2

Offer Management 3

Issuer and Card Group Management 4

Cardholder Ticket/Tape Processing 5

Cardholder Extract 6

Offer Assignment 7

Offer Delivery 8

Offer Fulfillment 9
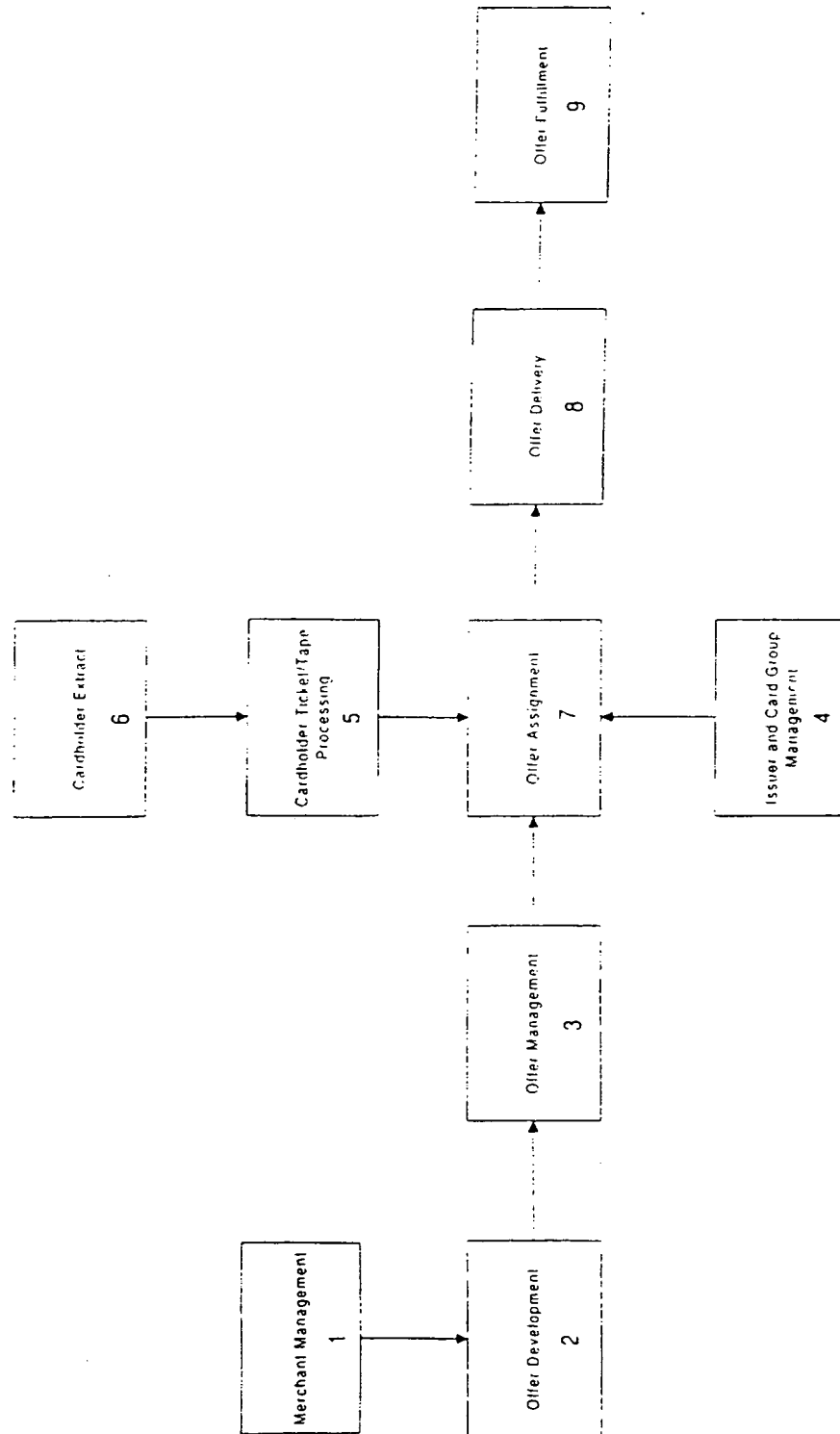
Figure 1.1 - Merchant Management

Figure 1.2 - Offer Development

Figure 1.3 - Offer Management
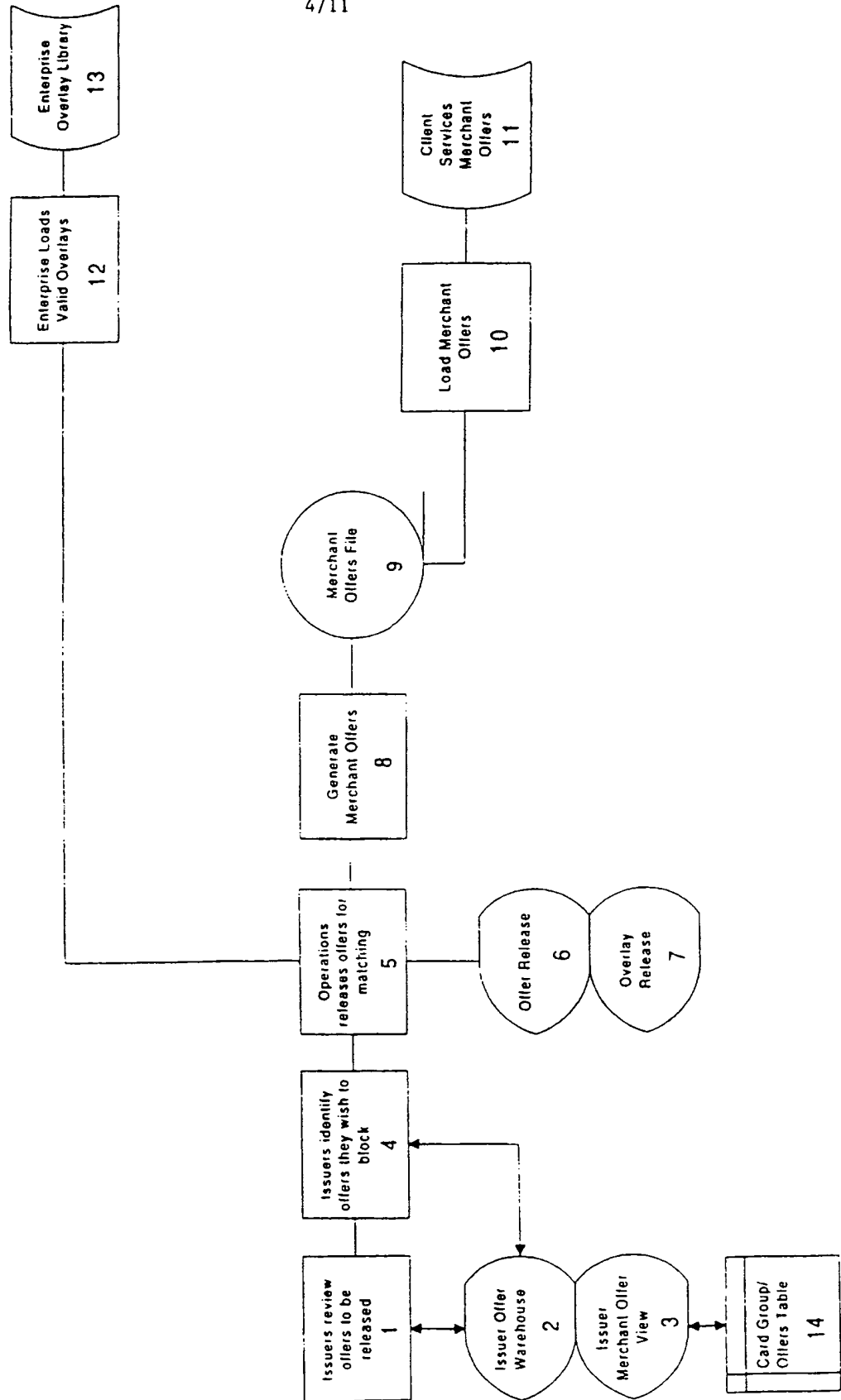
Figure 1.4 - Issuer and Card Group Management
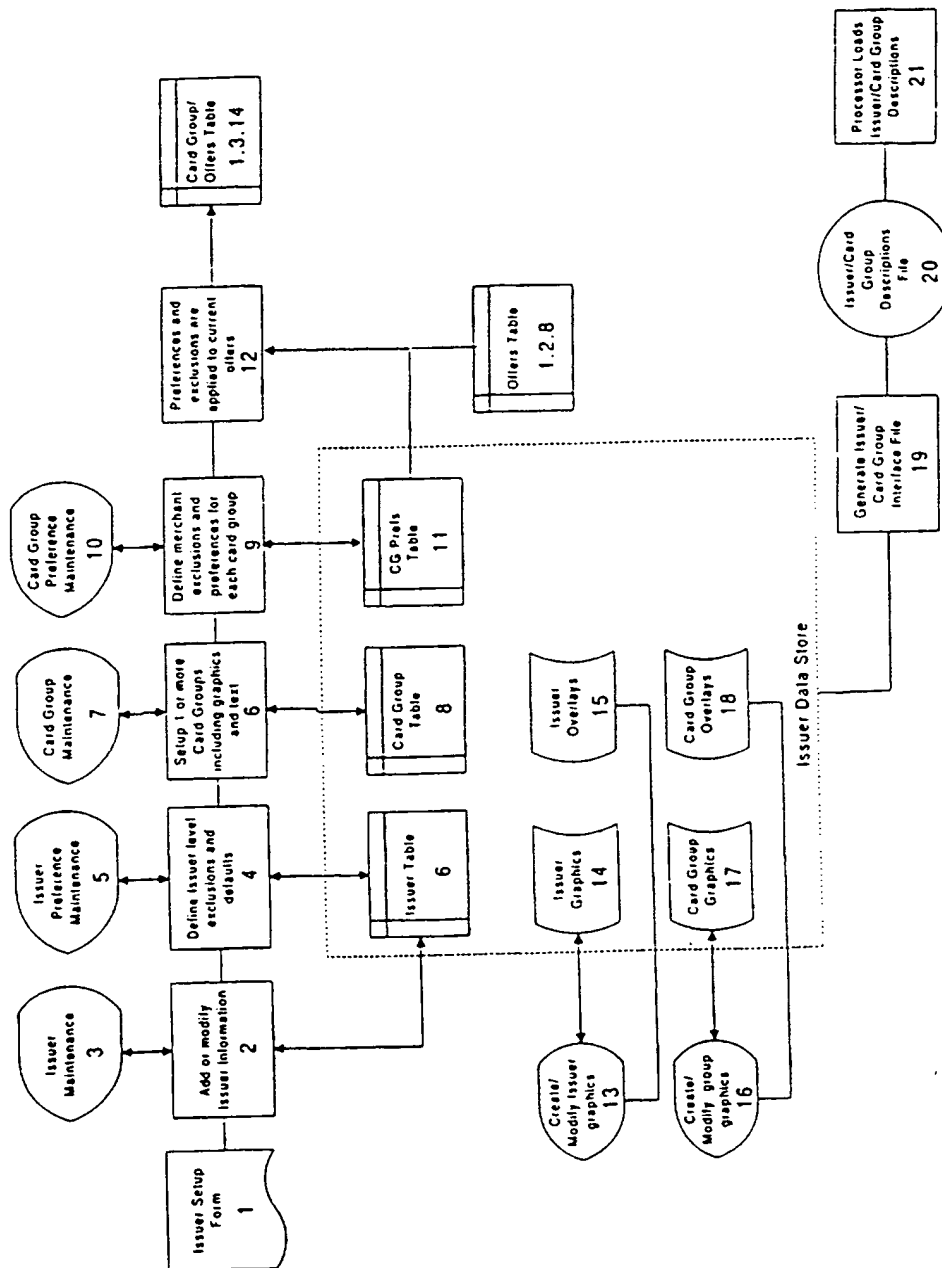
Figure 1.5 - Cardholder/Ticket Tape Processing
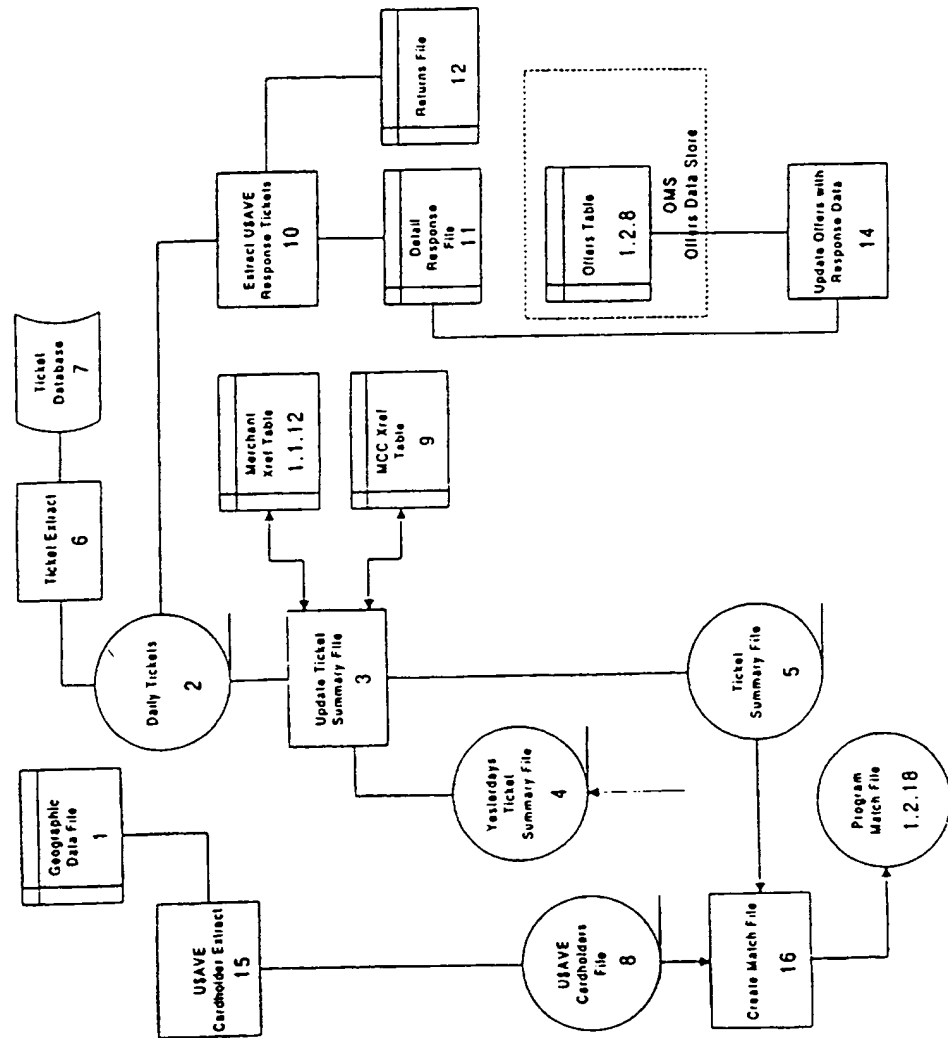
Figure 1.6 - Cardholder Extract
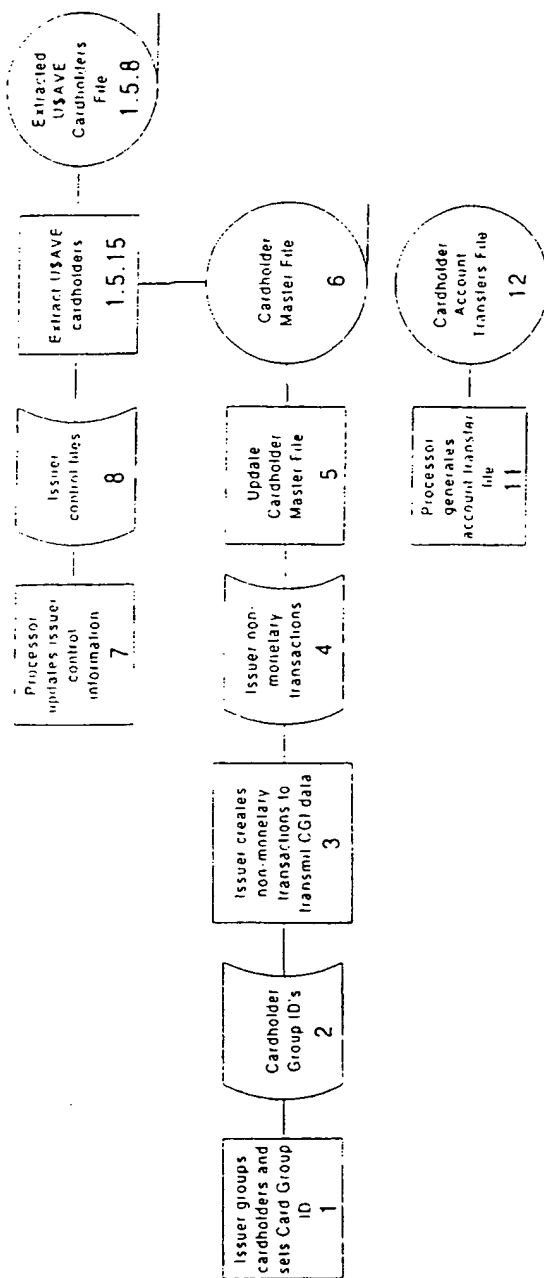
Figure 1.7 - Offer Assignment
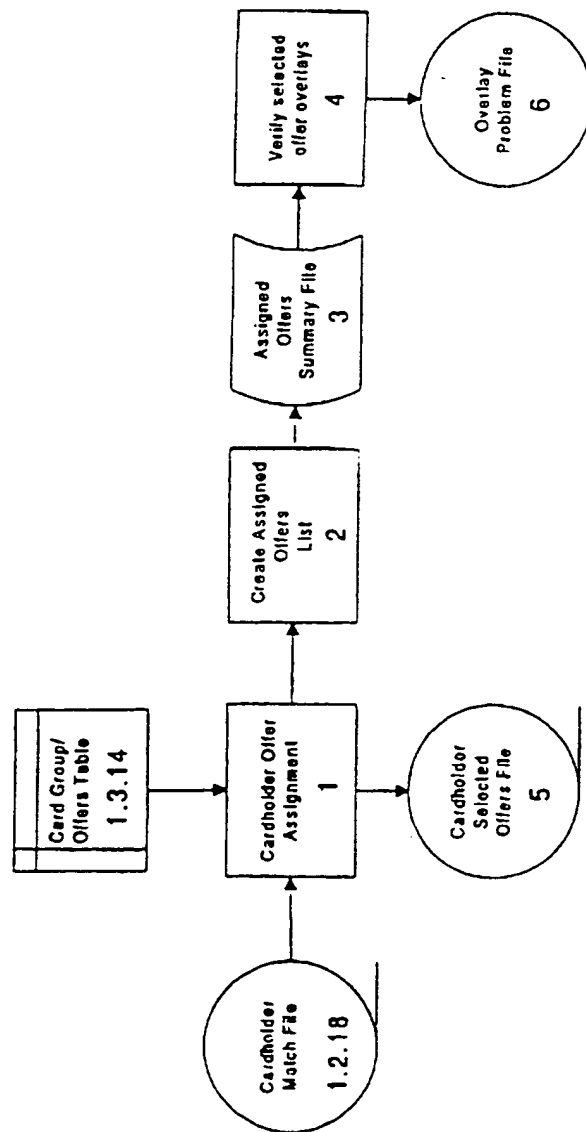
Figure 1.8 - Offer Delivery
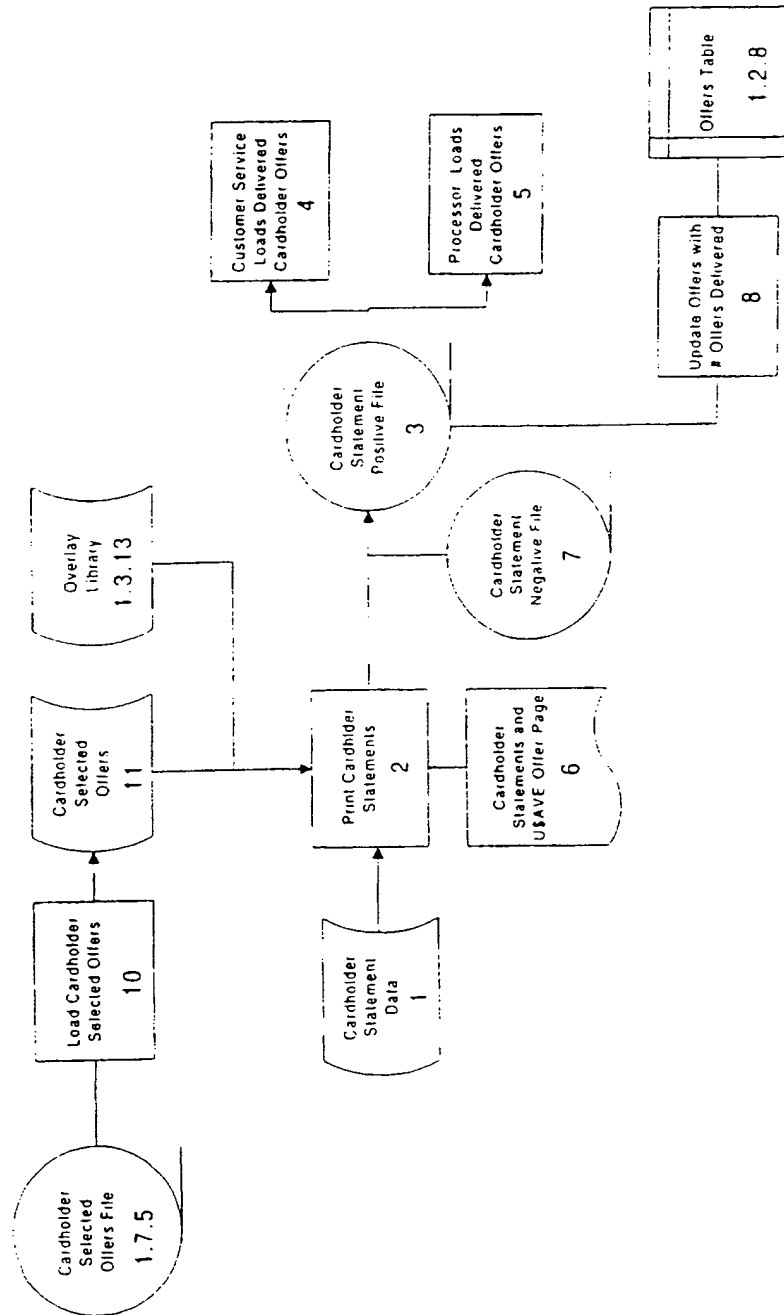
Figure 1.9 - Offer Fulfillment
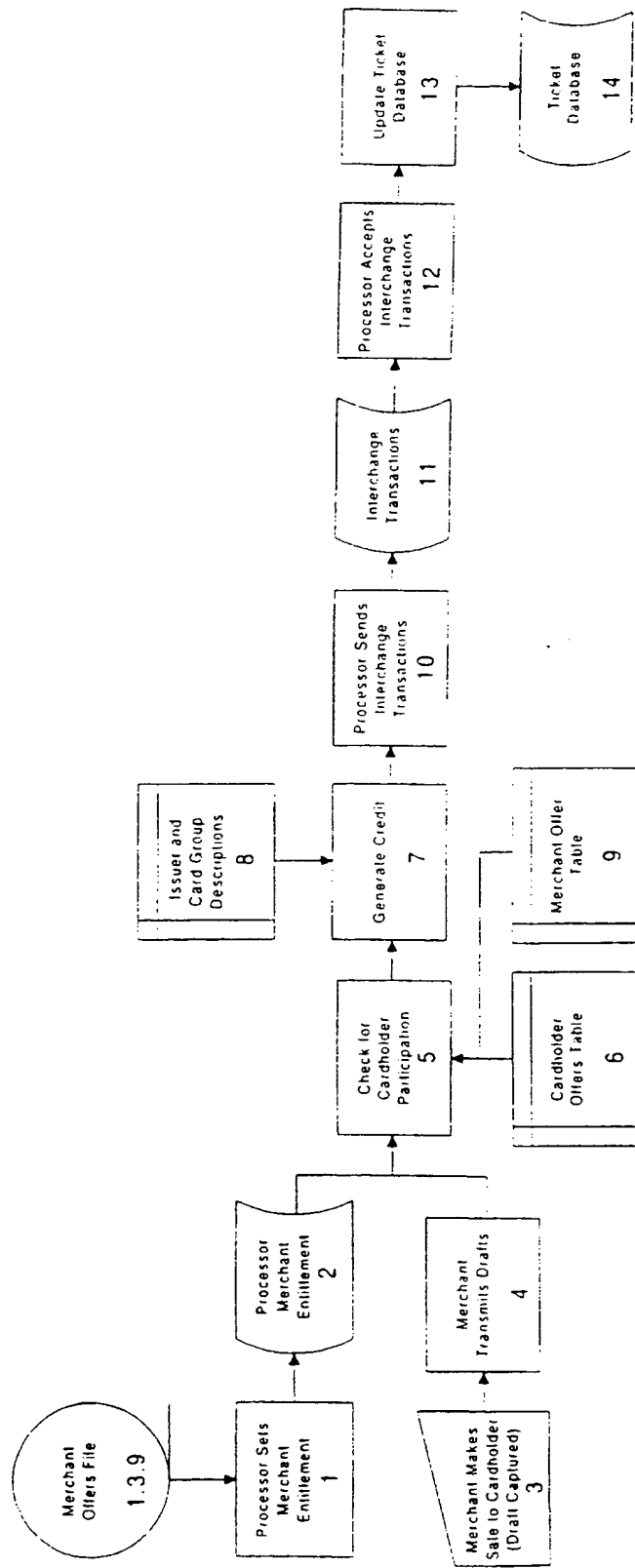
Figure 2 - Check for Cardholder Participation
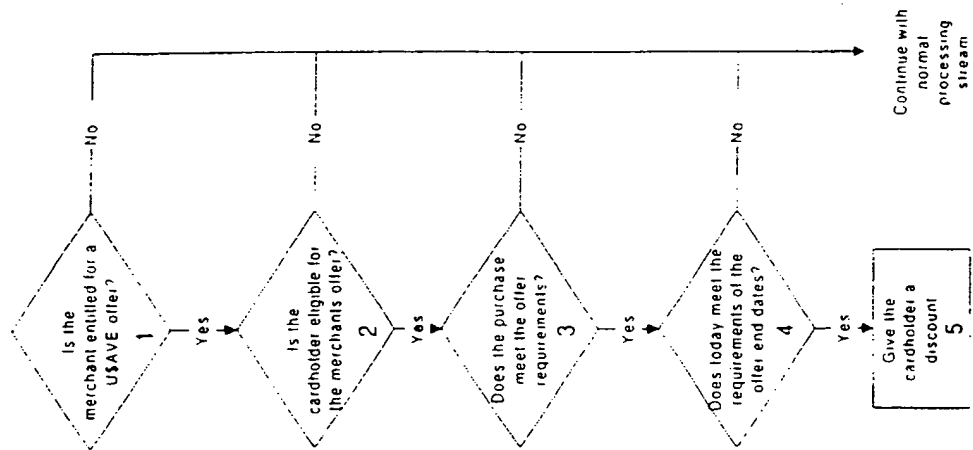
Is the merchant entitled for a USAVE offer? 1 — No — Continue with normal processing stream

Yes

Is the cardholder eligible for the merchants offer? 2 — No

Yes

Does the purchase meet the offer requirements? 3 — No

Yes

Does today meet the requirements of the offer end dates? 4 — No

Yes

Give the cardholder a discount 5

INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6   G06F17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6   G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
Y	WO 95 03570 A (CREDIT VERIFICATION CORP) 2 February 1995	1-5,31, 32,44, 45,48-51
A		6-30, 33-43, 46,47. 52-64
	see page 6, line 3 - page 7, line 16	
	see page 12, line 17 - page 14, line 2	
	see page 41, line 10 - line 27	
	see page 155, line 5 - page 160, line 9	
	see page 223, line 22 - page 225, line 21	
	see page 267, line 10 - page 272, line 16	

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
27 November 1997	04/12/1997

Name and mailing address of the ISA	Authorized officer
European Patent Office, P B 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Gardiner, A

Form PCT/ISA/210 (second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No
Y	KLOKIS H: "UKROP'S TESTS DATA BASE MARKETING PROGRAM ELECTRONIC COUPONING TRACKS BUYING BEHAVIOR OF VALUED CUSTOMERS" CHAIN STORE AGE EXECUTIVE WITH SHOPPING CENTER AGE, 1 September 1987, page 73/74, 78 XP000567643	1-5,31, 32,44, 45,48-51
A		6-30, 33-43, 46,47, 52-64
	see page 73, column 2, line 5-26 see page 73, column 3, line 9-62 see page 74, column 1, line 12 see page 74, column 3, line 15 - page 78, column 1, line 32 ---	
A	TANNER R: "A NEW DIMENSION IN MARKETING" PROGRESSIVE GROCER, vol. 66, no. 5, 1 May 1987, page 133/134 XP000567198 see the whole document -----	

3

INTERNATIONAL SEARCH REPORT

Inter   nal Application No

PCT/US 97/13588

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		EP	0711434 A	15-05-96
		US	5644723 A	01-07-97
		US	5649114 A	15-07-97
		US	5687322 A	11-11-97
		US	5642485 A	24-06-97

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

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(71) Applicant: FIRST DATA CORPORATION [US/US]; 700 Hansen Way, Palo Alto, CA 94304 (US).

(72) Inventors: PEIRCE, Roger, L.; 648 Oak Ridge, Los Altos, CA 94024 (US). RHOADS, Bruce, C.; 718 Bounty Drive, No. 1812, Foster City, CA 94404 (US). DUNCAN, John; 48 Webster Street, Malverne, NY 11565 (US). LOFTESNESS, Scott, J.; 21 Los Robles Court, Menlo Park, CA 94025 (US). JOHNSON, Kurt, W.; 1917 East Secretariat Drive, Tempe, AZ 85284 (US). DOBBS, Mary, K.; 229 Sacramento Street, No. 18, San Francisco, CA 94115 (US). MAYES, Dan; 2167 Camden Lane, Hanover Park, IL 60103 (US).

(74) Agents: LAURIE, Ronald, S. et al.; McCutchen, Doyle, Brown & Enersen, Three Embarcadero Center, San Francisco, CA 94111 (US).

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(54) Title: SYSTEM AND METHOD FOR A TARGETED PAYMENT SYSTEM DISCOUNT PROGRAM

High Level Overview

(57) Abstract

A system and method for operating a computer based targeted payment system discount program. Consumer information from consumer payment system institutions is used to match qualified consumers to targeted merchant discount offers. Offers are automatically prioritized based on their expected value to consumers and consumers receive the highest priority offers for which they qualify. The default prioritization can be altered or overridden by the consumer's payment systems institution. Discounts are automatically applied during the processing of the qualifying purchase without the need for coupons or additional actions by either the merchant or consumer.